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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,951	02/28/2005	Doron Shabat	29195	2616

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EXAMINER	
LOVE, TREVOR M	

ART UNIT	PAPER NUMBER
1611	

MAIL DATE	DELIVERY MODE
08/19/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/525,951	SHABAT ET AL.	
	Examiner	Art Unit	
	TREVOR M. LOVE	1611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05/28/2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24,54-87 and 102-205* is/are pending in the application.

4a) Of the above claim(s) *103-160* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24,54-87,102 and 161-205* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *01/28/2009, 05/28/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Acknowledgement is made to Applicant's response filed 05/28/2009, and Applicant's two most recent information disclosure statements filed 01/28/2009 and 05/28/2009.

Claims 1-34, 54-83, 102-205 are pending. Claims 1-34, 54-83, 102, and 161-205 are currently under consideration.

Claim Rejections - 35 USC § 112 1st

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The rejection of claims 16-23, 35-53, 70-77, 84-101, 162-175 under 35 U.S.C. 112 1st paragraph as failing to comply with the written description requirement has been withdrawn.

Response to Arguments

Applicant argues in the response filed 05/28/2009 that Applicant does have written description for the instantly claimed invention. First, Applicant points to the specification as originally filed, wherein the claimed components are specifically recited. Applicant then points to the specification, wherein some of the components (such as the linker) are taught as being known in the art. Applicant further points to several disclosures which provide further support for said written description (such as De Groot, WO 02/083180 and Sagi et al, Bioorganic and Medicinal Chemistry). Applicant's arguments have been fully considered and are found persuasive. As such, the rejection under 35 U.S.C. 112, first paragraph, has been withdrawn.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 16-23, 70-77, and 162-205 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 16, 22, 70, 76, 162, 172, 174, 177, and 187 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: the symbols identifying the relationship between the claimed elements. For the sake of compact prosecution, the instant claims are being interpreted as having the same relation as set forth in the previous claim set filed 08/12/2008. Where new claims have been added, said claims are interpreted as having the same relation as set forth in claim which most resembles the subject matter disclosed in the specification and claimed elsewhere.

Claims 17-21, 23, 71-75, 77, 163-176, 178-205 are rejected under 35 U.S.C. 112, second paragraph, as either directly or indirectly depending from an indefinite claim.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-34, 54-83, 102 and 161-205 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker et al (U.S. Patent number 6,471,968) in view of De Groot et al (WO 02/083180) (IDS reference) in further view of Greenwald et al (J. Med. Chem. *Drug Delivery Systems Employing 1,4- or 1,6-Elimination: Poly(ethylene glycol) Prodrugs of Amine-Containing Compounds*).

Baker teaches a therapeutic and diagnostic multifunctional system comprising a dendrimer that uses imaging and triggering release of a therapeutic or diagnostic material (see abstract). Said therapeutic agent is taught as being the chemotherapeutic daunorubicin (see column 3, lines 39-55), this reads on **instant claims 13, 14, and 196**. Baker also teaches that there can also be a diagnostic agent which is a biological monitoring agent such as radioactive labeled elements (see column 4, lines 13-23) this reads on **instant claims 15, 30-32, 34, 69, 83, 171, 195, 197, 201, 202, and 204**. Baker also teaches that there can be multiple therapeutic agents attached to the dendrimer that act synergistically (column 16, lines 22-25) this reads on **instant claims 9-11, 26-29, 64, 65, 192-194, 198-200**. Baker further discloses that the therapeutic agent can be activated upon release, and said release can be enzymatic cleavage or photo-cleavage (see column 4, line 66 through column 5, line 9). Baker also discloses that the composition can comprise a pharmaceutically acceptable carrier (see column 5, lines 19-24), this reads on **instant claim 205**. Baker also teaches that the active can be an anti-microbial (see column 3, lines 39-45), this, upon combination with the aforementioned references, reads on **instant claims 33, 102, and 203**.

Baker fails to directly disclose that the dendrimer is self-immolative. Baker also fails to disclose the exact structure, for instance, of the linker or spacer that is enzymatically cleaved.

De Groot teaches a branched composition of the general formula:

$$V\text{-}(W)_k\text{-}(X)_l\text{-}A\text{-}Z$$

-wherein "V" is a specifier, or ***trigger***, which is removed by an enzyme;

-wherein "$(W)_k$-$(X)_l$-A" is a self-eliminating, or ***self-immolative***, spacer system;

-wherein "W" and "X" are each a 1,(4+2n) electronic cascade spacer, or **self-immolative linker**, being the same or different;

-wherein "A" is either:

-a spacer group of formula "$(Y)_m$" wherein "Y" is a 1 ,(4+2n) electronic cascade spacer, or a group of formula OR,

-"U" being a cyclisation elimination spacer, or **self-immolative spacer**;

-wherein "Z" is a therapeutic or diagnostic moiety;

-wherein "k", "l", and "m" are independently an integer from 0 (included) to 5 (included);

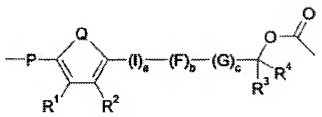
-wherein "n" is an integer of 0 (included) to 10 (included), with the provisos that:

-when "A" is "$(Y)_m$"; "k"+"l"+"m"≥1, and if "k"+"l"+"m"=1, then "n">1 ;

-when "A" is "U": "k"+"l"≥1.

As can be seen by the above composition, De Groot teaches a self-immolative compound comprising a cleavable trigger unit, at least one end unit, self-immolative linkers, and self-immolative spacers, wherein upon cleavage of said trigger unit, the composition self-immolates (see claims 1-4 and abstract), this, upon combination with the above identified references, reads on **instant claims 1, 3, 5, 6, 57, 59, 60, 161, 162, 183, and 185**. Said end units comprising anticancer agents such as daunorubicin (see claims 13 and 14), this, upon combination with the above identified references, reads on **instant claims 2, 163, and 189**. Said cleavable trigger unit is disclosed as being enzymatically cleaved (see abstract), this, upon combination with the above identified references, reads on **instant claims 7, 8, 61-63, 82, 165, 166, 190, and 191**. Said end units are taught as being either therapeutically effective active agents, or diagnostic agents (see De Groot, page 3, line 6), this, combination with the above identified references, reads on **instant claims 12, 66, 80, 82, 167, 168, and 195**. Components W, X, and A are all taught as being spacers, wherein W and X are taught as being either the same or different (see above description of formula), this, upon combination with the above identified references, reads on **instant claims 4, 58, and 184**. De Groot further teaches that the compound of De Groot can be mixed with a pharmaceutically acceptable carrier for purposes of delivery (see page 16, lines 4-7) this, upon combination with the above identified references, reads on **instant claims 54 and 176**.

De Groot further discloses a self-immolative linker with the general formula of:

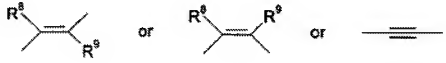


wherein "Q" can be O, S, NR^5, or $-R^5C=CR^6-$, wherein R^5 and R^6 can be hydrogen;

wherein "P" can be NR^7, O, or S;

wherein "a", "b", and "c" are independently an integer of 0 (included) to 5 (included);

wherein "I", "F", and "G" are independently selected from compounds having the formula:

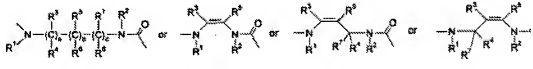


wherein R^1, R^2, R^3, R^4, R^5, R^6, R^7, R^8, and R^9 independently represent H, C_{1-6} alkyl, C_{3-20} heterocyclyl, C_{5-20} aryl, C_{1-6} alkoxy, hydroxy (OH), amino (NH_2), mono-substituted amino (NR_xH), di-substituted amino ($NR_x^1 R_x^2$), nitro ($N0_2$), halogen, CF_3, CN, $CONH_2$, $S0_2Me$, CONHMe, cyclic C_{1-5} alkylamino, imidazolyl, C_{1-6} alkylpiperazinyl, morpholino, thiol (SH), thioether (SR_x), tetrazole, carboxy (COOH), carboxylate ($COOR_x$), sulphoxy ($S(=O)_2OH$), sulphonate ($S(=O)_2OR_x$) sulphonyl ($S(=O)_2R_x$), sulphixy (S(=O)OH), sulphinate ($S(=O)OR_x$), sulphinyl ($S(=O)R_x$), phosphonooxy ($OP(=O)(OH)_2$), and phosphate ($OP(=O)(OR)_2$);

wherein R_x, R_x^1, and R_x^2 are independently selected from a C_{1-6} alkyl group, a C_{3-20} heterocyclyl group or a C_{5-20} aryl group, two or more of the substituents R^1, R^2, R^3, R^4, R^5, R^6, R^7, R^8, or R^9 optionally being connected to one another to form one or more aliphatic or aromatic cyclic structures.

Said structure, upon combination with the above identified references, reads on **instant claims 16-21, 70-75, 172, 173, and 177-182.**

De Groot also discloses a self-immolative spacer with the general formula:



wherein "a" is an integer of 0 or 1;

wherein "b" is an integer of 0 or 1;

wherein "c" is an integer of 0 or 1

provided that a + b + c = 2 or 3 ;

wherein R^1 and/or R^2 independently represent H, C_{1-6} alkyl, said alkyl being optionally substituted with one or more of the following groups: hydroxy (OH), ether (OR_x), amino (NH_2), mono-substituted amino (NR_XH), di-substituted amino ($NR_x^1R_x^2$), nitro (NO_2), halogen, CF_3, CN, $CONH_2$, SO_2Me, CONHMe, cyclic C_{1-5} alkylamino, imidazolyl, C_{1-6} alkylpiperazinyl, morpholino, thiol (SH), thioether (SR_x), tetrazole, carboxy (COOH), carboxylate ($COOR_x$), sulphoxy ($S(=O)_2OH$), sulphonate ($S(=O)_2OR_x$), sulphonyl ($S(=O)_2R_x$), sulphixy ($S(=O)OH$), sulphinate ($S(=O)OR_x$), sulphinyl ($S(=O)R_x$), phosphonooxy ($OP(=O)(OH)_2$), and

phosphate ($OP(=O)(OR_x)_2$), where R_x, R_x^1, and R_x^2 are selected fiom a C_{1-6} alkyl group, a C_{3-20} heterocyclyl group or a C_{5-20} aryl group;

and wherein R^3, R^4, R^5, R^6, R^7, and R^8 independently represent H, C_{1-6} alkyl, C_{3-20} heterocyclyl, C_{5-20} aryl, C_{1-6} alkoxy, hydroxy (OH), amino (NH_2), mono-substituted amino (NR_xH), di-substituted amino ($NR_x^1R_x^2$), nitro (NO_2), halogen, CF_3, CN, $CONH_2$, SO_2Me, CONHMe, cyclic C_{1-5} alkylamino, imidazolyl, C_{1-6} alkylpiperazinyl, morpholino, thiol (SH), thioether (SR_x), tetrazole, carboxy (COOH), carboxylate ($COOR_x$), sulphoxy ($S(=O)_20H$), sulphonate ($S(=O)_2OR_x$), sulphonyl ($S(=0)_2R_x$), sulphixy ($S(=O)OH$), sulphinate ($S(=O)OR_x$), sulphinyl ($S(=O)R_x$), phosphonooxy ($OP(=O)(OH)_2$), and phosphate ($OP(=O)(OR_x)_2$), where R_x, R_x^1, and R_x^3 are selected from a C_{1-6} alkyl group, a C_{3-20} heterocyclyl group or a C_{5-20} aryl group; and wherein R^1, R^2, R3, R^4, R^5, R^6, R^7, and R^8 can be a part of one or more aliphatic or aromatic cyclic structures, two or more of the substituents R^1, R^2, R3, R^4, R^5, R^6, R^7, and R^8 optionally being connected to one another to form one or more aliphatic or aromatic cyclic structures.

Said structure, upon combination with the above identified references, reads on **instant claims 22, 23, 76, 77, 174, 175, and 187.**

Greenwald teaches a tripartite drug comprising a trigger, linker, and drug. Said trigger is enzymatically cleaved. Said drug can be either para-aniline or daunorubicin (see scheme 2 and table 1). Greenwald further discloses that the linker can have the branch that comprises the drug be in different locations (see table 1, specifically, compounds 34b-37b).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Baker, De Groot, and Greenwald. One would have been motivated to do so to allow the composition of Baker to experience release of the therapeutic agents and diagnostic agents upon a single self-immolative triggered event. By modifying Baker with the teachings of De Groot and Greenwald, the composition of Baker would be able to release an increased number of drugs (tail units) upon a single natural or man-made trigger. Furthermore, the single trigger would be able to have a smaller concentration in the self-immolative system than if each cleavage was dependent on individual actions of the trigger. There would be a reasonable expectation in the success of the combination since all three compositions teach enzymatic cleavage of daunorubicin, and all three compositions are designed as therapeutic/diagnostic compositions designed for cancer treatment/diagnosis.

With regard to **instant claims 55 and 56**, it would have been obvious to one of ordinary skill in the art at the time the invention was made to package the pharmaceutical composition and identify its use.

With regard to **instant claims 24-25, 78-79, and 164**, it would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the number of generations and ramifications based on the amount of drug desired. Furthermore, in the disclosure of Baker and specifically in Figure 1, Baker teaches increasing the size of a dendrimer by adding generations, and in Figure 8, Baker teaches increasing the number of ramifications.

Response to Arguments

Applicant argues in the response filed 05/28/2009 that the instant invention provides a solution to a long felt need for efficient compounds that are capable of simultaneously releasing a plurality of functional moieties. Applicant states that dendrimers are known in the art, however, said dendrimers require a plurality of events to achieve substantial amplification of tail units release (see Remarks, page 69, paragraphs 2-3). Applicant's argument is not found persuasive since while Applicant has stated that there is a long felt need for a dendrimer which can simultaneously release a plurality of tail units, Applicant has failed to clearly point to support and/or evidence of said long felt need.

Applicant further argues that Baker is completely silent with respect to the design and practice of self-immolative dendrimers. Further, Applicant argues that Baker does not even remotely suggest that such a release can be preformed by manipulating the structural elements of common dendrimers. Applicant's arguments are not found persuasive. Specifically, it is noted that Baker is not relied upon alone, rather, Baker is relied upon in conjunction with De Groot and Greenwald. It is noted that De Groot provides clear teaching of "self-immolative systems which have basic structural elements identical to those of the claimed self-immolative linkers" (see Remarks, page 62, last paragraph), wherein Applicant further states that "the structural elements that are distinct from those described in De Groot merely allow the formation of a dendrimeric structure, and do not affect the self-elimination reactions that the claimed self-immolative linkers are capable of undergoing." (see Remarks, paragraph bridging pages 62 and 63). It is further noted that motivation for modification comes from a

desire for the composition to be able to release multiple tail units in a single location, rather than being released upon multiple triggers over a period of time. Therefore, while Baker does not anticipate the instant invention, the composition of Baker, in combination with Greenwald and De Groot (which provides motivation and a direct teaching of the same self-immolative process) read on the instant invention.

Applicant further argues that De Groot and Greenwald are silent as to the use of self-immolative dendrimers that simultaneously release all of their tail units upon a single cleavage event. Applicant further states that both De Groot and Greenwald fail to address the long-felt need for such dendrimers and provide no motivation for combining the methodologies taught therein with the unique structural characteristics of dendrimers. Applicant's arguments are not found persuasive since one would have been motivated, given the teachings of Baker, De Groot and Greenwald, to utilize the self-immolative linkers and spacers in the invention of Baker to allow for a greater amount of active to be released while utilizing a smaller amount or less intense trigger. It is further noted that De Groot and Greenwald are not required to address the "long felt need" as Applicant claims. Primarily, Applicant has failed to clearly point to support and/or evidence which satisfy the requirements for long felt need (see MPEP 716.04). Secondarily, it is noted that the art is not required to teach the same reasoning for adding components as Applicant, MPEP 2144 (IV) states "the reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by Applicant. See,

e.g., In re Kahn, 411 F.3d 977, 987, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)." Wherein further it is noted that MPEP 2112 states: ""[T]he discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentably new to the discoverer." *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999). Thus the claiming of a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable. *In re Best*, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977)." It is the position of the Examiner that the composition of Baker in view of De Groot and Greenwald would be similar, if not the same, as the instant invention. Therefore, upon a single trigger, the composition of Baker in view of De Groot and Greenwald would necessarily have the same reaction of self-immolation as the instant invention.

Applicant further alleges that the instant invention could not have been made in view of the teachings of the cited prior documents without an inventive activity. However, Applicant has failed to clearly point to support and/or evidence of said necessity for an inventive activity in addition to the cited prior art documents for one to arrive at the instant invention.

Applicant further argues that it is "well recognized in the chemistry field, let alone the medical chemistry field, a successful design that combines different structural elements into a single compound is never trivial, as synthetic chemistry depends on many factors" (see Remarks, page 71, paragraph 2). Applicant's argument is not found persuasive since, as Applicant has pointed out, one of ordinary skill in the art desiring to

combine the teachings of Baker, De Groot, and Greenwald would have been prepared to conduct a considerable amount of experimentation, which is no more than routine in the art. Applicant has clearly set forth that routine experimentation in the synthetic chemistry field, particularly in medical chemistry, is known to be affected by many factors, therefore, one of ordinary skill would consider a considerable amount of experimentation to be a reasonable, routine amount.

Applicant further argues that the Examiner's conclusion of obviousness includes knowledge gleaned only from Applicant's disclosure, and it therefore based on improper hindsight reasoning. Applicant's argument is not found persuasive since it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). As stated above, De Groot teaches "self-immolative systems which have basic structural elements identical to those of the claimed self-immolative linkers" (see Remarks, page 62, last paragraph), and the combination of Baker, De Groot, and Greenwald provide sufficient knowledge to arrive at the instant invention.

Applicant further argues that the Examiner's statement that a reasonable expectation of success exists is "completely false" since the instant invention does not depend solely on the presence of an enzymatically-cleavable trigger unit and/or the release of therapeutically active agents and/or diagnostic agents, but is mainly

attributed to the presence of the claimed self-immolative chemical linkers and its self-immolation compatibility with the trigger unit the releasable tail unit and the optional spacer (see Remarks, page 72, third paragraph). Applicant's argument is not found persuasive since, as set forth above, the composition of the instant invention is taught by the combination of Baker, De Groot, and Greenwald. Applicant clearly states that De Groot teaches "self-immolative systems which have basic structural elements identical to those of the claimed self-immolative linkers" (see Remarks, page 62, last paragraph). The composition of Baker, De Groot, and Greenwald renders obvious the instant claims, and the combination of the references flows logically from all three compositions being designed as therapeutic/diagnostic compositions designed for cancer treatment/diagnosis. Furthermore, structural similarities between De Groot and Greenwald, and the teaching in Baker and Greenwald of multiple tail units would have motivated one to utilize multiple linkers from De Groot in the composition of Baker.

Conclusion

No claims allowed. All claims rejected. No claims objected.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TREVOR M. LOVE whose telephone number is (571)270-5259. The examiner can normally be reached on Monday-Thursday 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila Landau can be reached on 571-272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TL

/Sharmila Gollamudi Landau/

Supervisory Patent Examiner, Art Unit 1611